

A.D. 1838, JAN. 28, No. 291,
BROOMAN'S SPECIFICATION.

FIG. 1.

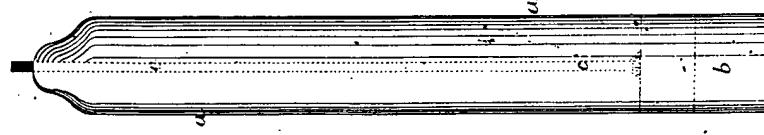


FIG. 3.

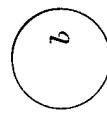


FIG. 2.

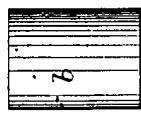


FIG. 7.

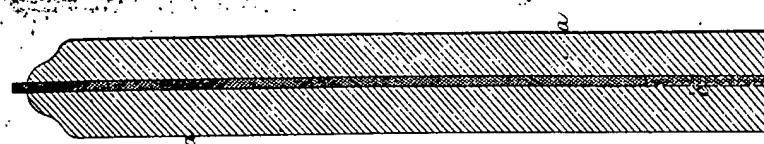


FIG. 6.

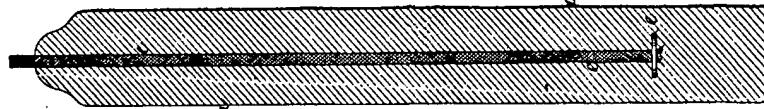


FIG. 4.

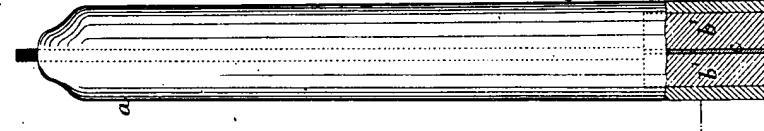
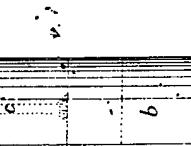


FIG. 5.



FIG. 1.



The filed drawing is partly colored,

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A.D. 1868, 28th JANUARY. N° 291.

Self-extinguishing Candles.

LETTERS PATENT to Clinton Edgcumbe Brooman, of the Firm of Robertson, Brooman, and Company, of 166, Fleet Street, in the City of London, Patent Agents, for the Invention of "IMPROVEMENTS IN THE MANUFACTURE OF CANDLES."—A communication from abroad by Louis Miroude-Pichard, of Rouen, France.

Sealed the 23rd June 1868, and dated the 28th January 1868.

PROVISIONAL SPECIFICATION left by the said Clinton Edgcumbe Brooman at the Office of the Commissioners of Patents, with his Petition, on the 28th January 1868.

I, CLINTON EDGCUMBE BROOMAN, of the Firm of Robertson, Brooman, and Company, of 166, Fleet Street, in the City of London, Patent Agents, do hereby declare the nature of the said Invention for "IMPROVEMENTS IN THE MANUFACTURE OF CANDLES," to be as follows:—

The object of this Invention is to produce the automatic extinguishing of candles before they have burnt down to the end, and the Invention consists in providing in the candle itself the means for extinguishing it. Several modes may be adopted for carrying out this Invention.

Brooman's Improvements in the Manufacture of Candles.

First. At the time of moulding or during or after the moulding of the candle it receives at its lower part an end piece composed of plaster or other bad conductor of the heat and light. This end forms part of the candle, completing the end thereof; when the candle burns down to this incombustible end it goes out. The wick may 5 be carried the whole length of the candle or stop at the incombustible end. This end may be rendered adherent to the other part of the candle by being made beforehand in the form of a full or hollow cylinder of the same diameter as the candle, and by being applied to the candle while the latter is still soft or melted, or by running an 10 incombustible material into the candle mould itself.

Secondly. An incombustible end may be made of a smaller diameter than the candle, and be surrounded with the tallow or composition in the mould.

Thirdly. Instead of the incombustible end the wick may be shortened 15 so as not to reach to the bottom of the candle. This shortened wick may if desired have a wire or a piece of other incombustible material attached thereto. The candle will go out when it has burnt down to the end of the wick.

Fourthly. The wick may be carried the whole length of the candle, 20 but be previously impregnated or coated at the point at which it is desired the candle should go out with an incombustible chemical substance.

SPECIFICATION in pursuance of the conditions of the Letters Patent, filed by the said Clinton Edgcumbe Brooman in the Great Seal 25 Patent Office on the 27th July 1868.

TO ALL TO WHOM THESE PRESENTS SHALL COME, I, CLINTON EDGCUMBE BROOMAN, of the Firm of Robertson, Brooman, and Company, of 166, Fleet Street, in the City of London, Patent Agents, send greeting.

WHEREAS Her most Excellent Majesty Queen Victoria, by Her Letters Patent, bearing date the Twenty-eighth day of January, in the year of our Lord One thousand eight hundred and sixty-eight, in the thirty-first year of Her reign, did, for Herself, Her heirs and successors, give and grant unto me, the said Clinton Edgcumbe Brooman, Her 30 35

Brooman's Improvements in the Manufacture of Candles.

special licence that I, the said Clinton Edgcumbe Brooman, my executors, administrators, and assigns, or such others as I, the said Clinton Edgcumbe Brooman, my executors, administrators, and assigns, should at any time agree with, and no others, from time to time and at all times thereafter during the term therein expressed, should and lawfully might make, use, exercise, and vend, within the United Kingdom of Great Britain and Ireland, the Channel Islands, and Isle of Man, an Invention for "IMPROVEMENTS IN THE MANUFACTURE OF CANDLES," (communicated to me from abroad by Louis Miroude-Pichard, of Rouen, France,) upon the condition (amongst others) that I, the said Clinton Edgecumbe Brooman, my executors or administrators, by an instrument in writing under my, or their, or one of their hands and seals, should particularly describe and ascertain the nature of the said Invention, and in what manner the same was to be performed, and cause the same to be filed in the Great Seal Patent Office within six calendar months next and immediately after the date of the said Letters Patent.

NOW KNOW YE, that I, the said Clinton Edgcumbe Brooman, do hereby declare the nature of the said Invention, and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement thereof, reference being had to the Drawings hereunto annexed, that is to say:—

The object of this Invention is to produce the automatic extinguishing of candles before they have burnt down to the end, and the Invention consists in providing in the candle itself the means for extinguishing it. Several modes may be adopted for carrying out this Invention.

First. At the time of moulding or during or after the moulding of the candle it receives at its lower part an end piece composed of plaster or other bad conductor of the heat and flame. This end forms part of the candle, completing the length thereof, and being connected thereto in any convenient manner; when the candle burns down to this incombustible end it goes out. The wick may be carried the whole length of the candle or stop at the incombustible end; this end may be rendered adherent to the other part of the candle by being made beforehand in the form of a full or hollow cylinder of the same diameter as the candle, and by being applied to the candle.

Brooman's Improvements in the Manufacture of Candles.

while the latter is still soft or melted so that the candle sticks thereto, or by being fixed to the candle by glue or an adhesive matter.

Secondly. An incombustible end may be made of a smaller diameter than the candle and be forced or pushed in as soon as the tallow or composition is run into the mould.

Thirdly. Instead of the incombustible end the wick may be shortened so as not to reach to the bottom of the candle; this shortened wick may if desired have a wire or a piece of other incombustible material attached thereto. The candle will go out when it has burnt down to the end of the wick.

Fourthly. The wick may be carried the whole length of the candle, but be previously impregnated or coated at the point at which it is desired the candle should go out with an incombustible chemical substance or a substance which will render that part of the wick incombustible.

The accompanying Drawings represent several modes of carrying out this Invention.

Figure 1 shows a candle *a*, the bottom or lower end *b* of which is made of incombustible material; this bottom or end *b* is shown separately in Figures 2 and 3; it is a cylinder, say of clay, which may be applied in the mould to the candle when just moulded in order to produce adherence. The wick *c* does not extend into the end piece *b*.

Figure 4 shows a candle *a*, into the bottom of which when in the mould and at the time of moulding a cylinder *b¹* of smaller diameter than the candle is pushed; this incombustible end is not visible on the exterior.

Figure 5 is a section of this candle through the line 1, 2, of Figure 4. The ordinary wick *c* is continued from the upper end of the piece *b¹* by an iron wire *c¹* which terminates at the bottom.

Figure 6 is a longitudinal section of a candle in which the wick *c* is shortened and carries a metal disc *e*, which causes the extinction of the light.

Figure 7 is a longitudinal section of a candle in which the lower part *c¹* of the wick is impregnated or coated with an incombustible chemical material.

Brooman's Improvements in the Manufacture of Candles.

And having now described the nature of the said Invention, and in what manner the same is to be performed, I declare that I claim as the "Improvements in the Manufacture of Candles,"—

First. Manufacturing self-extinguishing candles, substantially in the manner herein-before described.

Second. The several modes, each and all of them, herein-before described of producing the extinction of the light when the candle has burnt down to a certain point.

In witness whereof, I, the said Clinton Edgcumbe Brooman, have
10 hereunto set my hand and seal, this Twenty-seventh day of
July, One thousand eight hundred and sixty-eight.

C. E. BROOMAN. (L.S.)

LONDON:

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Printers to the Queen's most Excellent Majesty. 1868.

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